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Declaration
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IN THE UNITED STATES PATENT AND TRADEMARK OFFICE

In Re Application of: Anderson

Serial No: 08/716,018

Group Art Unit: 2712

Filed: September 19, 1996

Examiner: Greening, W

For: A Method And System For Displaying
Images And Associated Multimedia
Types In The Interface Of A Digital Camera

DECLARATION UNDER 37C.F.R. 1.131

I, Eric C. Anderson, hereby declare that:

1. I am the inventor of the subject matter recited in the claims of the above-identified application.
2. Prior to September 13, 1996, I conceived of the idea of displaying a series of image cells in the interface of a digital camera, wherein each cell displays an image and graphical icons indicating to the user what media types are associated with the image, as described and claimed in my application.
3. I conceived of this idea while working for Apple Computer, Inc., in Cupertino, CA, as System Architect for Apple's next generation software architecture for image capture devices, code-named "FlashPoint".

4. Attached Exhibit A is a document dated July 17, 1996 that I prepared summarizing inventions conceived for the FlashPoint project. The bottom of page 2 includes a paragraph labeled "Camera GUI" setting forth a description of my invention, as described and claimed in my application. The name "Sawyer" in the parenthetical information identifies the outside counsel to whom the invention disclosure, #P1947, was assigned for preparation as a patent application.
5. Attached Exhibit B is a letter dated September 10, 1996 from outside counsel to Eric Anderson enclosing a first draft of the application for review.
6. On September 19, 1996, the present patent application describing and claiming my invention was filed.

I hereby declare that all statements made herein of my own knowledge are true and that all statements made on information and belief are believed to be true; and further that these statements were made with the knowledge that willful false statements and the like so made are punishable by fine or imprisonment, or both, under Section 1001 of Title 18 of the United States Code and that such willful false statements may jeopardize the validity of the application or any patent issued thereon.

E C Anderson
Eric C. Anderson

8/17/98
Date

Inventions Summary by Priority FlashPoint Project

by Eric C. Anderson
System Architect
Image Capture Group

July 17 1996

Filed Patents

- P1311: Focus Methods and Auto-Macro
- P1366: Color Overlay for Focus Assist
- P1369: Orientation Sensors in a Digital Camera
- P1449: Interrupt System for a Multi-Threaded Digital Camera
- P1450: Image Rotation Pre-Storage Process
- P1560: Whole Way Scan AF
- P1561: DMA Chaining Async Protocol
- P1600: MultiMode ROM under SW control
- P1422: 3/8ths rule Image Quantization
- P1439: Battery Utilization with a Flash
- P1451: Background Spooling in a Digital Camera
- P1873: Disk Icon Support for Power Failure
- P1496: Navigation in Image Sets (GUI)
- P1969: Utilization of Battery Backed DRAM in a Digital Camera
- ?????: SDRAM Mode Cycling UNKNOWN STATUS/IBM Joint Patent

AA Inventions

These are the most basic of all of the A level inventions, and should be addressed first.

Pixel Quantization and Compression (Sawyer: Dalke)

- P1363: Image Compression [Eric Anderson & George Dalke]

Power Management (Carr: Johnson)

- P1871: Interrupt Unblocking Power Failure Recovery [Eric Anderson & Celeste Johnson]

Background Spooling (Carr: Masukawa)

- P?: Spooling: Method for Correlation of Delayed Processing Requirements with Image to be Processed

Mechanism for Ensuring Correct Processing in a Digital Camera: method for collecting relevant information concerning the capture and processing of an image into a data structure, associating the data structure with an image, and maintaining the connection of the two throughout the background spooling process and image processing to ensure correct handling of the image in a digital camera. Also results in correct tags being assigned to final compressed image data file. Part of the information is the image size, which allows images of different size to be processed. [Eric Anderson & Mike Masukawa]

P?: Spooling: Computing Status for Multiple Storage Devices when using Delayed Processing

Mechanism for Communicating the Status of Multiple Storage Devices: a set of flags is used to completely represent the ability of multiple prioritized storage devices to be reported as to their ability to support additional spooling of images in a digital camera which utilizes background spooling. This method also allows better display to user of # of images remaining during the processing. [Eric Anderson & Mike Masukawa]

File/Folder Naming (Sawyer: Masukawa)

P?: Method for Image File Naming to Resolve Conflicts

A Numbering and Naming Method for Images Captured by a Digital Camera: This is a simple system for eliminating name conflicts in a digital camera, by using a counter to count the total images captured. This count is used as part of the image name. This number is stored in EEPROM memory to maintain its value accurately under all power conditions, including power failures. This also eliminates conflicts on the host when the files are uploaded, since each image captured has a unique name. [Eric Anderson, Mike Masukawa]

P?: Method for Image File System Organization and Folder Naming to Resolve Conflicts

A Method for Managing Removable Media Used in Multiple Cameras: When one (expensive) removable storage device is shared between multiple cameras, problems can result due to file naming conflicts. This is eliminated by using a folder named in part with the camera serial number for the image files generated by a given camera. This ensures no conflict between cameras. This includes command set for accessing images from a given camera from the host. [Eric Anderson, Mike Masukawa]

Camera GUI (Sawyer: Anderson)

P1947: Adam GUI: Combining Icon and Image Pane for Grouping

Method for Displaying Grouped Images: Each image or set of images which are grouped by the capture process (such as a burst, a time-lapse, etc) is displayed as a single image, along with one or more icons to indicate the type. Includes

sound annotation, single image, sequence of images, movies, slide shows, presentations, panaramas, etc. [Eric Anderson]

P1970: Adam GUI: Creating a Slide Show

Method for Creating a Slide Show from a series of Images: This is a method for creating a series of slides using the "mark" function for the purpose of designating a sequential series of images. The group, once marked, can be deleted, moved, a soundtrack recorded to make a slide show/presentation, etc. Method provides for dynamic rearranging during the marking process. [Eric Anderson]

P?: Adam GUI: Realtime Capture of a Slide Show with Sound

Method for Creating a Slide Show with Soundtrack in Real Time using a Digital Camera: This is a method for automatically creating a slide show in a single step. [Eric Anderson]

P1971: Adam GUI: Sound Annotation Methodology

Method for Adding Sound Automatically to the Correct Image: this is a method for either adding an annotation to the previous image captured or to the next image captured. This flexible method simplifies the interface for the user, making the addition in either case a natural one. [Eric Anderson]

P1972: Adam GUI: Media Type Expansion in a Digital Camera

Method for Expanding the Media Types Supported in a Digital Camera: This is a software plug-in architecture to provide additional media types for the icon and image pane methodology described above. The plug-in defines the appearance of the icons in the pane, when they are used, and how to create the image pane. Function names for the soft menu are defined and actual function code provided via the API. Second level functions accessed via the soft menus are also provided in the plug-in architecture. This allows the addition of new types of image/icon panes to be added to the camera application. [Eric Anderson]

Image Processing Backplane (Sawyer: Chin)

P1973: Image Processing Backplane: IPC Creation

A Method for Automatic Construction of an Image Processing Chain (IPC) in a Digital Camera: this is a software method for creating an image processing chain from a list of available modules, which can include both default, "built-in" modules as well as additional and replacement modules loaded via removable storage or communications link with the digital camera. The image processing backplane constructs the IPC and provides all inter-module line buffering and sequencing of module execution to process an image. Method eliminates the